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Ethnic Balance in the Soviet Military in a Decade of Manpower Shortage

An Intelligence Assessment

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SOV 83-10062
April 1983

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Intelligence

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Ethnic Balance in the Soviet Military in a Decade of Manpower Shortage

An Intelligence Assessment

This assessment was prepared b
the Office of Soviet Analysis

SOV 83-10062
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[redacted]

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Ethnic Balance in the Soviet Military in a Decade of Manpower Shortage

Key Judgments

Information available as of 1 December 1982 was used in this report.

The Soviet military faces a demographic dilemma in the 1980s. While military planners, accustomed to 20 years of abundant manpower, wrestle with a smaller supply, they must also manage an influx of ethnic groups traditionally viewed by the military as of relatively lower "quality" than Slavic conscripts. The ethnic "problem" is not new. The shifts in ethnic composition of the draft pool began in the 1970s and will continue beyond 1990. The proportion of non-Slavic minorities among 18-year-olds will rise steadily from 25 percent in 1970 to nearly 40 percent by 1990.

New estimates of the size and ethnic composition of certain noncombat units indicate that they absorb most of the minority conscripts, thereby preserving Slavic dominance in the combat services. We define the Soviet national security or "combat" force to include those elements of the military that perform missions of national defense similar to those of the US military. This includes all military personnel except those in the Construction, Railroad, Internal Security, and Civil Defense Troops. Two-thirds of the personnel in the Construction, Railroad, and Internal Security Troops are minority conscripts. In this sense, these three services act as an ethnic "sponge." Currently, this assignment policy holds down the minority share of conscripts in the national security force to about one-fifth, compared with one-third of the draft-age population. The non-Slavic share of the officer corps is even less, presently estimated at only 10 percent.

Part of the explanation for the ethnic pattern of conscript assignment is the lower educational and Russian-language-fluency levels of some minority groups. However, this alone cannot explain the persistence over time of the very high proportion of minorities in noncombat service, since minority educational and linguistic achievements improved substantially in the 1970s. A major element is probably longstanding ethnic distrust, fanned by the participation of some minorities on the German side in World War II.

On balance, it is likely that the military leadership considers non-Slavic conscripts as relatively uneducated, politically unreliable, or both. We cannot estimate the impact ethnic distrust has on combat capabilities, but it is obvious that current assignment practices mitigate any adverse effect.

The lack of non-Slavs in the officer ranks primarily reflects the traditional minority aversion to military service and not official policy. However, [redacted] report that non-Slavic officers sometimes experience unofficial prejudice.

Caught between the economy's need for additional manpower, a sharp reduction in the growth of the working-age population, and the rising share of minorities among 18-year-olds, the Soviets cannot maintain the status quo on all fronts. There is no longer any slack to be found in further limiting draft deferments, since the Soviets virtually eliminated deferments for higher education early in 1982. The most promising response to the manpower shortage—an extension of the current two-year term of service for conscripts—would maintain military manpower at present levels, but it would not prevent the share of minorities in the national security force from rising to nearly 30 percent by 1990 from its current share of about 20 percent. A second possible response to the shortage, a reduction in the noncombat force, would result in an even greater proportion of minorities in the combat services by 1990, because the national security force will have to absorb those minorities who previously would have been assigned to the noncombat military.

The Soviets face even more difficult problems maintaining "quality" in the officer ranks. The career military has always claimed a large share of college-educated male Slavs, but, as their numbers decline during the 1980s, the military will require an even larger share—from a current 20 percent to nearly 30 percent of male Slavic college graduates to maintain the present size, ethnic composition, and educational standards of the officer corps

Since the choice of a career as an officer, unlike conscript service, is voluntary, Soviet options are sharply limited. Greatest emphasis probably will be on further encouraging college-bound youth of all ethnic groups to choose the military as a career, but this is unlikely to succeed. Despite heavy propagandizing and compulsory premilitary training for high school students, the population as a whole and minorities in particular do not see a military career as especially attractive. In addition, the manpower shortage may give recent high school graduates more choices among civilian jobs. Unless the officer corps can enhance its image or offer substantially higher pay, the prospects for attracting a substantially larger share of highly qualified high school graduates are dim.

Faced with the choice of lowering educational standards or watching the ranks dwindle, the officer corps will probably lower its standards. This may take the form of greater reliance on warrant officers or lower entrance requirements to the nationwide system of military colleges. Of course, this does not preclude the use of coercive measures to retain adequate numbers of career personnel. However, such measures would exact a heavy price in morale and effectiveness.

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Ethnic Balance in the Soviet Military in a Decade of Manpower Shortage

Introduction

Our army is a special army in the sense that it is a school of internationalism, a school of indoctrination of feelings of brotherhood, solidarity, and mutual respect on the part of all the nationalities and ethnic groups in the Soviet Union. Our armed forces are a unified amicable family . . .

Leonid Brezhnev,
1974

Although we know the general dimensions of Soviet military manpower problems with some certainty [redacted] we know little about how seriously the Soviets regard the growing share of non-Slavic minorities. As in any multiethnic society, prejudice is common, making it difficult to determine the impact on military effectiveness. Before and during World War II, the Soviet military employed a variety of discriminatory measures against minorities, but there is little direct evidence on their post-World War II status other than statements such as Brezhnev's above.

This paper attempts to identify the ethnic composition of the national security force and whether it is unexpectedly disproportionate.[1] If it is, we would conclude that it is likely to be part of military manpower policy. Such a finding would not prove that the Soviet military has an ethnically biased policy, since we lack the direct evidence necessary for a conclusive judgment. However, it would strongly suggest that there is such a policy and that in practice the Soviets are seriously concerned about the ethnic composition of their forces

The next section presents the overall picture of military manpower supply and demand. Before turning to the changing ethnic composition of the population, a perspective on the "legacy of distrust" outlines why, despite protestations to the contrary, ethnic composition is likely to be a source of concern to the Soviet military leadership. After describing the shifts in the ethnic makeup of the draft-age population, the paper presents estimates of the ethnic composition of conscripts in the national security force. (The methodology is described in appendix B.) The final section is a discussion of possible Soviet options for addressing the demographic changes of the 1980s.

Manpower Shortages and the Military

The demographic aftermath of World War II is apparent in figure 1, showing the trend in Soviet males reaching draft age.[2] The small cohorts born in the war years reached age 19 in the early 1960s.[3] In 1963 the number of draft-age males was only 42 percent of its level in 1958. Just prior to this period Khrushchev had announced massive reductions in the armed forces totaling more than 2 million men. Although this was also part of Khrushchev's shift away from large conventional forces in favor of strategic forces, the reduction avoided a manpower crisis. To maintain a force equal to the 1955 level would have required nearly twice the available number of 19-year-olds in 1963

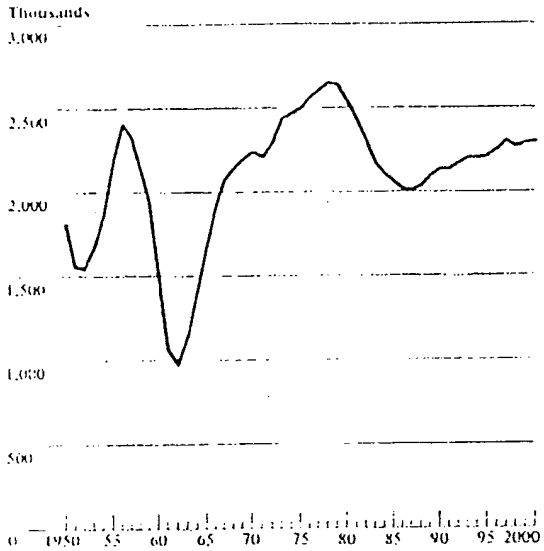
Fortunately for the Soviets, the shortage during the 1960s passed relatively quickly. In 1967 the number of males reaching draft age was twice the 1963 level,

[1] We define the "Soviet national security force" as those elements that perform missions of national defense similar to those of the US military. These are the Soviet Ground Forces, Air Forces, Air Defense Forces, Strategic Rocket Forces, Navy, national command and support, and the KGB Border Guards, which together total 4.3 million men. Excluded are the noncombat services: the Construction, Railroad, Internal Security, and Civil Defense Troops

[2] The draft age was 19 until 1968, when it was lowered to 18. (U)

[3] In this paper, a "cohort" is defined as the total number of Soviet males born in the indicated years

Figure 1
USSR: Draft-Age Males, 1950–2000[a]



[a] Draft age is 19 before 1968 and 18 thereafter.

Source: 1950–92 US Census Bureau, Foreign Demographic Analysis Division; 1993–2000 CIA estimate.

and in that same year a new law on military service raised conscription rates 50 percent by lowering the term of service from three to two years.[a]

As the 1980s unfold, the second demographic "echo" (the children born to the small wartime cohorts) will reach draft age. This shortage will be much less severe—the number of males reaching draft age in 1986 will be 76 percent of the postwar peak in 1978, but, unlike the shortage during the 1960s, there will be no quick recovery to preshortage manpower levels. The number of males reaching draft age will not return to the 1980 level through the year 2000. Hence, even though the impending shortage is less severe in the short term, its long-run effects will be more serious.

Figure 2 shows how in the past the Soviets have subordinated conscription to changing manpower supply. Without the troop reductions of the late 1950s preceding by only a few years the dramatic decline in draft-age males, the Soviets would have had to nearly double the three-year term of service then in effect. The increased demand resulting from the change to a two-year term of service (which took effect in 1968) would not have been practical without the rapid increase in draft-age males. If the Soviets make no effort to subordinate demand to flagging supply in the 1980s, as is assumed in the projections presented in figure 2, requirements will exceed supply within the next five years.[b]

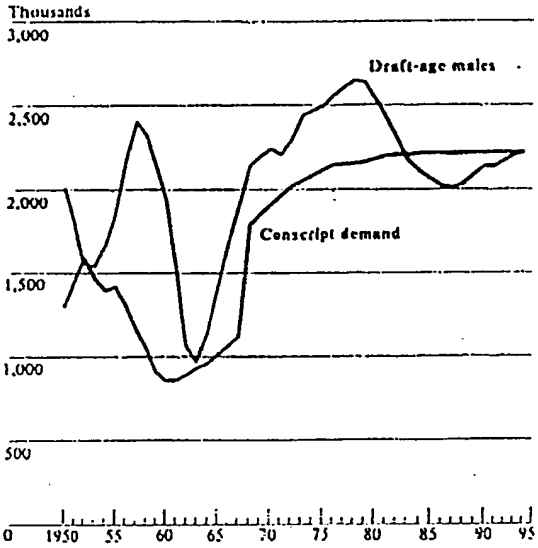
Evidence of an official reaction to the impending manpower shortage is already apparent. Early in 1982, Moscow essentially eliminated deferments for higher education. This will mean that some students who would have been deferred previously will be conscripted before they complete or even begin their higher education. These conscripts, who will be better educated than the average conscript, will improve the quality and number of conscripts as a whole only marginally. This change will add at most 5 percent to the manpower supply, since we estimate that, in the past, only about half of those with higher education escaped conscription.[c]

[a] With a three-year term of service, each year one-third of all conscripts in the military are replaced. With a two-year term, one-half are replaced, requiring draft calls to be 50 percent higher

[b] Although we estimate demand will exceed the number of 18-year-olds in 1984, the Soviets conscript men up to the age of 26, enabling them to delay a crisis a few more years by taking men who were not conscripted when manpower was more plentiful

[c]

Figure 2
USSR: Conscript Demand and Draft-Age Males, 1950-94[a]



[a]Draft age is 19 before 1968 and 18 thereafter. Conscript demand for 1982 and later assumes that total military manpower remains constant. Although demand appears to have just barely been satisfied in 1952 and 1963, this was actually not the case. Males can be inducted up to age 26, so in these years demand was met by conscripting older males passed over previously.

Minorities in the Military: A Legacy of Distrust

Since the days of Peter the Great, ethnic Russians have dominated the military. Most non-Slavic groups, brought into the Russian empire by force, have been viewed as unreliable by Slavs. The German invasion in 1941 provided dramatic evidence of this when large numbers of Ukrainians, Balts, Caucasians, and others fought against their homeland under German command, despite certain death if recaptured. The historical record shows that ethnic prejudice permeated manpower practices through World War II.[7]

When first introduced in 1700, conscription was confined to Russian areas only. It spread to other Slavic areas and remained focused there until the military reforms in the late 19th century. Non-Slavs could serve voluntarily in auxiliary units known as troops of different nationalities, but these were not considered part of the regular army.[8]

The military reforms of 1874 disbanded troops of different nationalities and revised ethnic manpower policies. A few non-Slavic groups in European Russia that the Tsarist government considered loyal were subjected to conscription, although Moslem and Asian people were specifically excluded—the government took a dim view of training potentially rebellious people in combat skills. The new policy required that the ethnic composition of the annual draft cohort and of military units be at least 75-percent Slavic. By continuing to allow selected minorities to serve in special voluntary units, however, the government could use the military to maintain internal control more easily. For example, troops could be used to quell disorder in areas where they had no ethnic affinities.

When World War I began, the Tsarist government formed a limited number of volunteer units among some of the minorities previously excluded from military service, but it was reluctant to raise such "national" units on a large scale for fear of encouraging

[7]Alex Alexiev reviews the role of non-Russians as German allies in *Soviet Nationalities in German Wartime Strategy, 1941-45*, Rand Corporation, R-2772-NA, August 1982. Background material in this section for the pre-World War II period is drawn from Susan Curran and Dmitry Ponamareff, *Managing the Ethnic Factor in the Russian and Soviet Armed Forces*, Rand Corporation, R-2640/1, July 1982

[8]Prior to their incorporation in the Russian empire, non-Russian ethnic groups were largely autonomous, self-governing entities. The common Soviet term for ethnic groups is "nationalities," although this paper uses "nationalities" and "ethnic groups" interchangeably

nationalist ambitions. The pressure of wartime losses forced the abandonment of this policy, touching off a bloody revolt when previously exempt Central Asians were conscripted for the first time in 1916.

During the chaos of the Civil War, both Reds and Whites sought to gain the support of minorities wherever they could. The Bolsheviks' ability to mobilize non-Russian units proved superior and was pivotal in ensuring their ultimate success. As the Bolsheviks slowly consolidated power, the role of these non-Russian forces in the peacetime Soviet state became an issue. Many of the minority people pressed for the institutionalization of their own armed forces. Rather than encourage threats to central control of the "border republics," the Soviet leadership restricted the size of national units and put them under close supervision. Nonetheless, these eventually fell under suspicion, and by 1938 all national units were officially disbanded.

In the desperate months following the German invasion of 1941, national units were revived to supplement the wilting Red Army even though some nationalities were proving unreliable in battle. Wartime action by loyal non-Slavs was militarily significant, but both real and imagined unreliability reduced their usefulness. Although the Germans never vigorously encouraged disaffected Soviets to desert, large numbers did so anyway. The number of Soviets who fought against their homeland is not precisely known, but it was probably well over 1 million and included Balts, Ukrainians, Belorussians, Crimean Tatars, Caucasians, Central Asians, and some Russians. As a precaution against unreliability, the Soviets formed nominally national units largely from Russians who lived in non-Russian republics.

Although many Slavs were also unreliable, non-Slavic groups were clearly considered the greatest risks[redacted] a classified order issued early in the War established a formal policy for the management of ethnic groups. This directive divided the nationalities into three groups, listed below in order of battleworthiness:

1. Slavs (Russians, Ukrainians, and Belorussians).
2. Armenians, Kazakhs, Volga Tatars, and possibly Georgians.
3. Jews, Germans, and Central Asians.

Those in the first category were assigned to combat, those in the second category to combat support, and those in the last category to the rear echelons. This directive was reportedly still in effect in the mid-1960s, but its present status is not known.

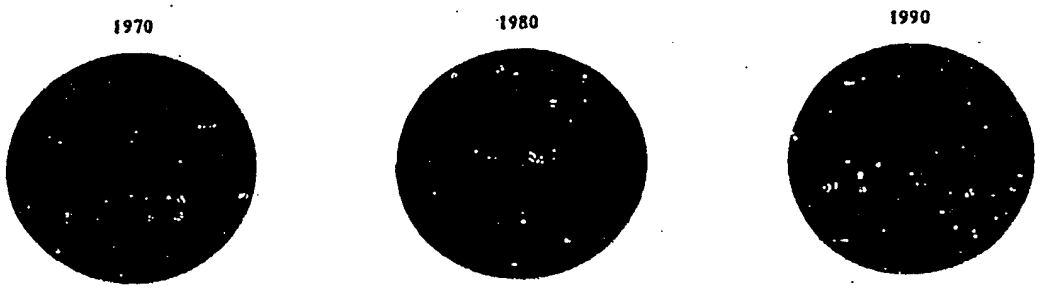
It was probably in response to this order that, after the tide of war turned in the USSR's favor, the proportion of Slavs in infantry divisions rose from 77 percent, approximately their share in the population, to 88 percent.[9] The disproportionate assignment of non-Slavs to support units is also evident in the ethnic composition of 11,000 recipients of the Soviet Union's highest combat honor, "Hero of the Soviet Union." Only 9 percent were non-Slav, despite the fact that they accounted for about 22 percent of the draft-age population.[10]

After World War II a few national units remained until the mid-1950s when they were disbanded permanently. Several [redacted] that the refusal of Georgian troops to fire on their own population during the Tbilisi uprising of 1956 played a part in the final demise of national units

There is also evidence of ethnic prejudice in post-War conscription. A study of the military service experience of 13,000 Jewish and ethnic Germa[redacted] suggests that, during the 1950s, these two groups were greatly underrepresented among conscripts. With the onset of the manpower shortages of the 1960s, however, conscription appears to have become more impartial. There is no evidence of prejudice in the conscription of Germans and Jews after 1960.[11] We have no direct information on the post-War experience of other ethnic groups, but during the last 15 to 20 years we estimate that conscription rates were sufficiently high that conscripts were almost certainly ethnically representative

[9] A. P. Artem'ev and P. Zhilin, *Kommunist*, Number 13, 1972, pp. 57-59
[10] *Soviet War Encyclopedia*, volume 3, Moscow, 1977, p. 264
[11] Se

Figure 3
Ethnic Composition of 18-Year-Olds in the Soviet Union: Slavic Versus Non-Slavic



Ethnic Composition of the Draft-Age Population

Since conscripts as a whole are ethnically representative (at least for the last 15 to 20 years), demographic changes in the draft-age population take on a new significance for the military. From 1945 to 1970 the ethnic makeup of the draft-age population was stable, with Slavs maintaining about a 75-percent share. The six major Moslem nationalities came to no more than 10 percent of the total. The high mortality rate in World War II does not seem to have affected the ethnic shares in the cohorts.

Figure 3 shows that there was substantial change in these proportions after 1970. By 1980 non-Slavs had risen to about one-third, and, for the first time, Russians were no longer the majority of the draft-age population. By the end of this decade, nearly 40 percent of 18-year-olds will be non-Slavic, and the Slavic advantage will slip from 3:1 to 1.6:1.

The cause of this shift is the divergent trends in Slavic and non-Slavic birth rates in the 1950s, when Slavic birth rates declined rapidly while non-Slavic rates rose. In the early 1960s birth rates for both groups became more stable. Non-Slavic population growth is now more rapid than Slavic growth, but this will change ethnic shares only gradually. Therefore, we project little change in the ethnic makeup of draft-age males from 1990 to 200(

Results of Analysis: Ethnic Composition of Conscripts

Although estimating the ethnic balance is valuable in and of itself, the real issue is whether a change in ethnic composition will impair the effectiveness of Soviet forces. To address this issue we would have to evaluate both the degree of ethnic prejudice and the demographic trends of the future

Role and Organization of the Noncombat Services

When discussing the Soviet defense establishment, we distinguish between Soviet manpower performing a national security role and men in units performing other tasks. As indicated above, the noncombat force or ethnic "sponge" consists of Construction, Railroad, and MVD Internal Security Troops. For convenience, we exclude Civil Defense Troops from this discussion, which are less than 1 percent of military manpower. For purposes of conscription, the Soviets include the noncombat units in their definition of armed forces. These units are not trained, organized, or equipped for combat, but they carry out functions for which militarized units are useful. In time of war, their jobs of maintaining rail lines, guarding rear areas, and repairing battle-damaged facilities would be critical. Each of the three noncombat services is described in more detail in appendix C.

One function of the noncombat military is to socialize young men from diverse backgrounds to common ideals. The Soviets place great value in prolonged political indoctrination and military discipline, and they consider it especially important that ethnic minorities be given an exposure to the Russian language and cultural standards. In the drive to make as many youths as possible undergo military service, exemptions are granted very rarely. (We estimate that, in the past, the Soviets deferred between 10 and 15 percent of cohorts. Of this, 5 percent received permanent medical deferments, and the rest received repeated temporary deferments for education or family hardship.)

Inevitably, many conscripts are unsuited for combat units because of mental aptitude, health problems, criminal records, or political unreliability. The large size of the noncombat services helps make military service universal by absorbing youths not desired as national security force personnel without lowering the effectiveness of combat units

The Soviets commit approximately 1.5 million men—about 25 percent of their military manpower—to the noncombat force. This share is based on a revised estimate of the size of these units, which is 50 percent higher than previously (see appendix A). Although we are less certain of the size of the noncombat military in the past, in 1960 it was probably about 800,000. The dramatic increase was facilitated by the rapid recovery from the manpower shortage of the early 1960s and by the adoption of a policy of universal conscription in 1967. The Soviets accomplished near universal conscription by reducing the three-year term of service to two years while increasing the number of draftees by 50 percent, conscripting nearly all the available draft-age males.

Projecting general demographic trends is relatively easy, and, assuming that the ethnic makeup in the noncombat military remains constant, we can derive the overall composition of the national security forces (see inset for a description of the noncombat military). Next, we would have to determine the present level of ethnic tension in the military and draw the implications for combat effectiveness. Unfortunately, the extent of ethnic prejudice in the military is much more difficult to determine. It requires at least some subjective judgment by human sources; reliably collecting such data should be done with a carefully controlled survey, which is impractical with current intelligence reporting

Rather than attempting to develop a picture from incomplete evidence on ethnic tensions, the focus in this assessment is on ethnic composition because it is a simple, objective index of Soviet attitudes and practices that we can measure despite the limitations of human-source data (see inset in appendix B). Finding an unequal ethnic composition does not prove that

Table 1
USSR: Reported Ethnic Composition of Conscripts in the Noncombat Force, 1965-80 [a]

	Number of Reports			
	Disproportionately Non-Slavic	Ethnically Representative	Disproportionately Slavic	Total
Construction battalions	78	9	2	89
Railroad battalions	22	4	1	27
MVD regiments	22	1	3	26
Total	122	14	6	142
	Percent Distribution			
	86	10	4	100

[a] Average actual manning (officers and enlisted men) of construction battalions is 540, railroad battalions 470, and MVD regiments 1,200. Since three-fourths of the reports were from the early 1970s or before, when the proportion of non-Slavs among draft-age youth was about 25 percent, a unit was considered to have an unrepresentative ethnic composition if the proportion of non-Slavic minorities exceeded 30 percent or was below 20 percent.

there is an ethnic bias in Soviet manpower policies, because we expect that the limited Russian-language ability of some non-Slavs results in their being concentrated in noncombat positions. As an indirect indicator, though, unequal ethnic composition at least raises the possibility that ethnic tension is serious

The Noncombat Force

Approximately 1,500 reports of noncombat units during 1965-80 were examined for information on the ethnic composition of conscripts. Although only 142 contained useful information, reported ethnic composition was remarkably similar for all three noncombat services: over 80 percent of the reports mentioned disproportionate numbers of non-Slavic minorities (see table 1).[12] In one-half of the reports, the source gave sufficient information to derive a percentage figure for the ethnic composition of his unit. The mode (most frequently reported) percentage of non-Slavs in the "unrepresentative" units was extremely high, over 75 percent. Nearly all of the remaining reports mentioned a "majority" or "mostly" non-Slavic makeup. By taking the mean value of all the reported percentages and assuming that the majority or mostly non-Slavic reports averaged 70 percent non-Slavic, we estimate the proportion of non-Slavs among noncombat conscripts at about 65 percent, twice their proportion in the draft-age population in 1980.[13]

A key uncertainty is whether the concentration of non-Slavs in these units is because of their lower educational levels or their ethnicity. If assignment to these units were based primarily on education, their composition should have become more representative over time because of improving minority educational

[12] Since reporting requirements on ethnic composition are relatively recent, comparatively few reports address this issue. However, reports in response to other requirements sometimes mention ethnic composition in passing and provide much useful data. Of the six reports of disproportionate numbers of Slavs, there was nothing to suggest that these were different from other units

[13] Since three-fourths of the reports were from the early 1970s or before, when the proportion of non-Slavs among draft-age youth was about 25 percent, a unit was considered to have an unrepresentative ethnic composition if the proportion of non-Slavic minorities exceeded 30 percent or was less than 20 percen

levels. On the other hand, if assignment were based primarily on ethnicity, one would expect their composition over time to be relatively fixed

Although the sample is too small to estimate annual trends in ethnic composition, by arbitrarily dividing it in half we obtain two periods: 1965-72 and 1973-80, intervals far enough apart that improvements in minority education should be significant. The percentage of units reported as disproportionately non-Slavic is identical for both periods at roughly 85 percent. This stability during a period when the number of construction battalions nearly doubled suggests that ethnicity was the more important criterion for assignment to the noncombat force. However, this finding is only tentative because of the small sample and because recent Soviet statistics may overstate the educational achievement of minorities. Nonetheless, the consistently lopsided ethnic makeup suggests that more than impartial assignment criteria are involved.

The National Security Force

Assuming our measure of the ethnic composition of the noncombat military is valid, we can estimate the non-Slavic component of the national security force as a residual of the total number of non-Slavic conscripts. In so doing, we assume that the ethnic composition of the noncombat military is constant over time at 65-percent non-Slavic

Given the assumptions outlined above and using the "residual" approach, in 1970 non-Slavs were only 9 percent of conscripts in the national security force. By 1980 this proportion had doubled because of the rapid growth in the share of non-Slavs in the draft-age cohort (see table 2). Even so, this was just slightly more than half the proportion of non-Slavs among draft-age youth at that time. Assuming no changes in 1980 manning levels and a continued level of 65-percent non-Slavs in the three noncombat services, by 1990 the proportion of non-Slavs among national security force conscripts will rise to 27 percent, still considerably less than the proportion of non-Slavs in the draft-age population but a major change from the past

Table 2
Estimated Ethnic Composition of Soviet Conscripts—1970, 1980, and Projected for 1990 [a]

Percentage shares

	Total	National Security Force	Noncombat Military [b]
1970			
Slavs	74	91	35
Non-Slavs	26	9	65
Total	100	100	100
1980			
Slavs	67	81	35
Non-Slavs	33	19	65
Total	100	100	100
1990			
Slavs	61	73	35
Non-Slavs	39	27	65
Total	100	100	100

[a] The 1990 estimate is based on assumptions given in the text, the most important of which is a constant size of the national security force and the noncombat military.
[b] Noncombat military ethnic composition is assumed to remain constant over time.

Of course, the Soviets could slow the rise in the minority share of the national security force by increasing the share of minorities in the noncombat military. For instance, if in 1990 the Soviets increased the share of minority conscripts in the noncombat military from 65 to 75 percent, the minority share of national security force conscripts would decline from 27 to 23 percent. This would still be a significant rise from its present 19 percent.

Ethnic Composition: Officers

Although the ethnic makeup of conscripts is changing, the officer corps remains a Slavic preserve. On the basis of an analysis of both open and classified

sources, we estimate that 90 percent of officers are Slavic with about 70 percent of the total Russian. Lower levels of education are insufficient to explain the virtual absence of non-Slavs—minorities have comprised slightly over 20 percent of college graduates for many years. More probable explanations lie in the traditional minority aversion to military service and a variety of both formal and informal barriers to minority officer candidates.

Prospective entrants to the nationwide system of 140 military colleges must pass difficult exams, including ones in Russian language and literature. Minorities are typically at a disadvantage, especially if officially sponsored coaching sessions are not offered locally. Further discouraging minorities, who usually have close ties to their native republics, is the location of most military colleges in the Russian republic. In addition, [redacted] report that the careers of minority officers are often stymied by unofficial prejudice and slow promotion.

Perhaps most forbidding to non-Slavs is the fact that becoming an officer essentially requires cultural assimilation. A minority officer will have few opportunities to speak his native language or associate with members of his ethnic group and is unlikely to be stationed in his native republic. His ability to practice non-Russian customs (particularly the Moslem religion) will be severely limited. If he has a family, it will be difficult for him to pass on his cultural heritage to his children. In short, becoming an officer means Russification, an unappealing prospect to most non-Slavic ethnic groups.

As both the number of college entrants and the share of Slavs among them declines in the 1980s, it will be difficult for the military to maintain its high educational standards. We estimate that in 1960 the military took about 6 percent of all male Slavic college graduates. In 1980 this figure was nearly 20 percent, and by 1990 could be just under 30 percent, again assuming that military manpower stays at present levels.[a] If Soviet college enrollment continues growing despite the declining number of college-age men, this projection may be too pessimistic. Nevertheless, we doubt that military colleges will be able to be as selective as in the past. Military and civilian competition for the highly educated is bound to intensify and may exacerbate skill shortages.

Is There a Policy of Ethnic Bias?

In this section, we discuss the significance of the ethnic composition findings for the possibility of a Soviet policy of ethnic bias. Ethnic composition is only an indirect indicator of a policy of ethnic bias, but the confirmed presence or absence of such a policy would have important implications for our assessment of Soviet combat effectiveness. Its presence would imply that the military leadership is seriously concerned about an adverse impact on combat capabilities and that the rising percentage of draft-age minorities may lower combat effectiveness in the future. On the other hand, the absence of such a policy would imply that the Soviets have made a successful break with the past and that non-Slavic groups are considered as reliable as Slavs, although Russian-language ability still hinders their military occupational assignments.

[a] The estimate of military requirements for Slavic college graduates assumes that 90 percent of all officers are careerists (rather than reservists on temporary duty), 90 percent of all officers are Slavic, and 5 percent of officers are replaced annually. On the basis of Soviet statements on the educational background of officers in the past, the fraction of newly commissioned officers with higher education is assumed at 20 percent in 1960 and 90 percent in 1980. A 1990 value of 95 percent assumes that the Soviets will achieve the same proportion of officers with higher education that the United States currently has.

The number of male Slavic college graduates in the past is based on Soviet education statistics and demographic estimates provided by the US Census Bureau's Foreign Demographic Analysis Division. The future number of college graduates assumes that the share of cohorts with higher education will remain the same as in 1980. Officer turnover is based on *Reference Book for Laws for Officers in the Soviet Army and Navy*, Moscow, 1970 edition, p. 60.

As mentioned above, we do not believe that the Soviets have an ethnically biased policy for officers. Although the ethnic makeup of officers is almost entirely Slavic, this appears to be the result of officer recruitment practices and minority preference rather than deliberate policy. A recent article in the military press suggests that attaining even the current proportion of ethnic minorities in the officer corps is due in part to unspecified efforts to ensure "adequate" ethnic representation. Since conscripts, on the other hand, have no choice in their assignment, the disproportionate ethnic shares in the national security force and in the noncombat military are more suggestive.

There is additional evidence that the military leadership views minority conscripts with concern. A [redacted] stated that in 1975 the 11th Air Defense Forces (PVO) Army maintained quotas on the percentages of minorities in its subordinate divisions. The political department in each division headquarters was responsible for monitoring divisional ethnic composition and notified Army headquarters whenever a new contingent of conscripts contained too many non-Slavic minorities

A body of indirect evidence supports this report. For instance, we know that the Soviets keep detailed records on the ethnic composition of their units as part of readiness reports. There is also evidence that the most ready units have preference in receiving Slavic conscripts.[1] The emphasis on the military as a "school of internationalism" overriding ethnic loyalties suggests that "obsolete and reactionary attitudes" persist and are of real concern. Historically, we also know that longstanding policies of ethnic prejudice were revitalized by the large numbers of non-Slavs who took up arms against the Soviet Union during World War II. These policies or some modification thereof carried over at least until 1960, when Jews and ethnic Germans began to be conscripted in representative numbers. In addition, Jews and ethnic Germans continue to report that they are frequently assigned nonsensitive positions or reassigned if inadvertently placed in sensitive positions

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Perhaps the most telling evidence of policies of ethnic prejudice in the military is not what the Soviets say, but what they do not say. Given the long history of Slavic control over the military, the elimination of ethnic prejudice would be a striking accomplishment. A complete reversal of the systematic prejudice of the past would require a formal, deliberate, and public effort involving high-level policy decisions, endless propagandizing, and a complex revamping of assignment practices. An elaborate reporting system would be necessary to monitor compliance. If at all successful, the Soviets would waste no time in boasting about the fact. There are no public signs, however, of a military "affirmative action" system. This alone suggests that in reality little has been done

Whether conscripts are assigned according to their ethnic group at the present time is uncertain, but we consider it a likely explanatio. along with minority educational shortcomings, for present assignment practices.

Soviet Options

The pressure on the Soviet conscription system is mounting, but one option—an extension of the term of service—offers a way out. Unlike the past, the Soviets will not be able to absorb the growing numbers of minorities by expanding the noncombat military. Officer procurement in the coming decade poses a more difficult problem. Although there are several actions the Soviets might take, the military probably will be unable to be as selective as in the past, forcing it to accept lower quality personnel than at present

Conscripts

Service Term Extension. We estimate that a six-month extension of the current two-year term of service would maintain military manpower at its present level. Conscription rates would still be high at about 80 percent, but this is well within historical levels. A six-month extension would incur economic costs by creating a one-time six-month delay of conscripts' entry into the labor force, but it would

provide the manpower to maintain the forces projected through 1990. This would result in slower growth of the labor force during the 1980s—5.7 percent instead of 6.3 percent over the period 1981-90, or 0.9 million less than otherwise. Subsequent to the change, the growth rate of the labor force would return to its original course. In addition, by holding the noncombat "sponge" at its present size, an extension retains a mechanism for dealing with ethnic shifts in the draft-age population. A longer term of service will not affect the estimated ethnic composition of conscripts in table 2 because the military would still be composed of essentially the same population as before. Therefore, barring other changes in conscription practices, there will still be a significant increase in the share of minority conscripts in the national security force.

Force Reductions. If the term of service is not extended, only a permanent troop reduction of roughly 1 million to the military would be sufficient to overcome the shortage in the mid-to-late 1980s. Such a reduction would be of value to the civilian economy, representing a 20-percent addition to the expected net growth in the labor force during the decade.[14] However, draft-age youth are largely unskilled and inexperienced, and, even after this large military force reduction, the civilian labor shortage would remain acute. Further, any cuts to the noncombat services would entail an economic loss, because the productivity of militarized construction units is higher than that of civilians. In addition, the availability of militarized labor for priority projects will become increasingly important as the labor shortage worsens.

If the noncombat "sponge" took the brunt of reductions, the national security force would have to absorb those minorities who would have been assigned to the noncombat ranks, raising the proportion of ethnic minorities in the national security force accordingly. The Soviets either would have to conscript fewer minorities or accept a national security force with a much higher proportion of minorities.

If the national security force took the brunt of the reductions, conventional combat capability would suffer. From a political and military viewpoint, the disadvantages of a national security force reduction are sufficient to rule it out. It would require a dramatic shift in defense philosophy and foreign policy, and it would disrupt costly operating and procurement processes. The Soviets may attempt to obtain some economies in manpower, but they are unlikely to offset much of the shortage.

Limited Deferments. In a country already practicing universal conscription, there is little slack to be found in deferments and not nearly enough to offset the manpower shortage. We estimate that, prior to 1982, between 10 and 15 percent of a draft cohort escaped service altogether. As noted earlier, recent changes reducing deferments for higher education will add at most only 5 percent to the manpower supply. Major gains from further limiting deferments are not practical.

Larger Minority Share in Noncombat Military. By raising the proportion in 1990 of non-Slavic conscripts from the present level of 65 percent to 75 percent, for example, the proportion of minorities in the national security force would rise from 19 to 23 percent instead of to 27 percent. Although the Soviets may increase the minority concentration in the noncombat military somewhat, they probably would not raise it by as much as 10 percent. The apparent durability of the 65-percent level during a period of sizable demographic shifts suggests that it is a deliberate choice by the Soviets for other reasons. The noncombat military is a useful, safe place to assign Slavs who are not desired in the national security force for political, physical, or mental reasons. Few of these would be acceptable substitutes for able-bodied minority conscripts. In addition, the presence of a sizable, albeit minority, share of Slavs in the noncombat military makes it easier for predominately Slavic officers to maintain discipline without arousing ethnic animosities.

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Officers

Unlike conscript service, the choice of a career as an officer is voluntary. This sharply limits Soviet options for maintaining the educational standards of officers. The tight labor market of the 1980s will offer college graduates a wider choice among civilian occupations, and the military may be forced to accept officer candidates who are less talented than presently.

Faced with a choice between lowering entrance requirements or accepting a decline in numbers, the military colleges probably will lower their standards. This might take place directly, in the form of lower entrance requirements for military colleges, or indirectly, in the form of transferring some of the responsibilities of junior officers to warrant officers

Limited measures to relieve the problem might include encouraging officers to postpone retirement, making greater use of retired and reserve personnel, and further encouraging military "spirit" among high school youth. These efforts are unlikely to be effective. There are, however, three longstanding policies that might be pursued more vigorously, though these too offer a low payoff:

- ***Intensified Ethnic Assimilation.*** The Soviets might step up their effort to promote ethnic assimilation via Russian-language instruction in school and thereby overcome the traditional non-Slavic reluctance to enlist. The Soviets have reported major gains in Russian-language fluency in the 1979 census, but there is evidence that some of these gains were exaggerated. For example, census "fluency" is self-assigned rather than objectively determined, tending to inflate claims of fluency. In any event, there is no doubt that ethnic cleavages persist and are basically unchanged. Assimilation of non-Slavic groups by Russians is extremely limited

- ***Increased Prestige.*** The Soviets could continue trying to improve the public image of military careerists. As the demand for better educated officers has grown, so have efforts to appeal to a more sophisticated youth. Nevertheless, surveys of occupational prestige in the Soviet Union suggest that, although officers enjoy considerable prestige generally, young people do not see a military career as especially attractive.[11] Minorities are likely to be particularly resistant to increased recruitment efforts, even aside from their traditional indifference to the Soviet military. They are reluctant to relocate from their native republics; they have been less likely to choose college specialties in technical fields of interest to the military; and in many cases they are all too familiar with unofficial ethnic prejudice in the military from the experience of friends and relatives.

- ***Increased Pay and Privileges.*** The Soviets may consider increasing officer pay or perquisites. A number of factors weaken the impact of monetary incentives, however. Military pay scales are classified information and are not widely known, and, in any case, access to scarce consumer goods would probably be a much greater incentive. Yet, Soviet officers already enjoy commissary privileges. Since any added benefits would have to be given to all 900,000 serving officers, this would be a very expensive incentive. Further, such benefits are available not only to officers, but to Communist Party members generally. A youth wary of the hardships of military life could obtain the same benefits as a civilian party member, although this usually takes some years of apprenticeship.

[11] Alex Inkeles, *Social Change in Soviet Russia*, Harvard University Press, Cambridge, Massachusetts, 1968, p. 188; Zev Katz, *Patterns of Social Stratification in the USSR*, MIT Center for International Studies, Cambridge, Massachusetts, April 1972, p. 23; Janet S. Schwartz and David R. Segal, *Military Service and Civilian Employment in the Soviet Union*, University of Maryland, 1982, pp. 35-36, 46-47.

Appendix A

New Estimates of Manpower In Noncombat Units

Estimating the manning of the Construction, Railroad, and Internal Security Troops poses difficult intelligence problems. Because they would not be involved directly in an armed conflict, traditionally the Intelligence Community has not followed them closely. In addition, their noncombat missions give them low "signatures," making it difficult for technical intelligence sources to identify all these units. That is, there are few distinctive facilities, weapons, or equipment associated with most of these units, nor do there appear to be standard sets of equipment. Consequently, until recently, our estimates were weak and in some cases outdated. As part of this assessment, the time series for these estimates was revised and updated. The new estimate for 1982 is 1.5 million, an upward revision of about 50 percent. Although our estimates of manpower levels in the past are less certain, in 1960 we believe they numbered about 800,000. We place the uncertainty of these estimates at ±20 percent. This is higher than the ±10 percent for our estimate for the national security force but represents a substantial improvement in our confidence compared with our previous estimates.

Given the magnitude of these increases, the possibility of exceeding a conscription "ceiling" merits special attention. Of course, such a ceiling is not fixed but can vary depending on how strictly mental and physical standards are applied. On the basis of evidence provided [ ] and on an analysis of the military service experience of a large sample [ ] we estimate that in the past the Soviets deferred between 10 and 15 percent of draft cohorts. Of this, 5 percent received permanent medical deferments, and the rest received repeated temporary deferments for family hardship or higher education. The increases to noncombat manpower were then tested with a computer model of the Soviet draft pool. The results showed that historical conscription rates in the model were within the higher "ceiling." They also showed that, to maintain the noncombat military at 1.5 million, the Soviets would have to modify conscription practices in 1981 or 1982. Lending further support to this analysis, the Soviets virtually eliminated deferments for higher education early in 1982.

Construction Troops [a]

Construction Troops consist primarily of *stroibats*, or labor battalions. There are only a few higher echelon units. Therefore, the main objective is to estimate the order of battle of construction battalions. Prior to 1980 we counted battalions as they were identified by intelligence sources. However, such an approach underestimates the actual number of battalions because it makes no adjustment for units that are not picked up by our sources. To correct for the inherent bias in this approach, we made a probabilistic adjustment based on the number of units identified more than once. If only a few units are identified more than once, there is a good chance that coverage by our sources is incomplete and that our estimate is quite low. Therefore, a large upward adjustment is in order. If many units come up repeatedly, coverage by our sources is relatively good and our sample is likely to be missing only a few units. In this case only a small adjustment would be necessary.

Combinatorial probability theory can be used to estimate the "maximum likelihood value" for the actual but unknown number of construction battalions, given the size and repetition in our report sample. Using this approach, in 1980 a data base of [ ] was analyzed extensively. In our sample only 16 percent of the battalions was reported more than once, so the estimate computed by this method was more than twice the number of

[a] This analysis updates and revises the estimate published in [ ]

reported battalions. The final result for battalion manpower for the period 1969-76 was 790,000 +25, −18 percent."

Finally, an updated estimate using this procedure was prepared that incorporated information received from March 1980 to October 1981, a 27-percent increase to our data base. This placed battalion manpower at 780,000, nearly the same as before, but narrowed the confidence interval to +19, −14 percent. An additional 20,000 men were in headquarters and training units for a total of 800,000 in 1982.

Railroad Troops

The organization of the Railroad Troops is only somewhat more hierarchical than that of the Construction Troops. The basic field unit, the brigade, is made up of labor and support battalions, but the number and types of battalions can vary widely. Our previous estimate constructed a hypothetical table of organization, but this dated from 1974 and was based on scanty evidence.

The revised estimate is based on a "model" brigade constructed from information provided by a knowledgeable [redacted]. The manning levels for its component battalions and headquarters are based on 118 [redacted] reports. Manpower in the model brigade is 4600.[redacted]

[redacted] The average reported manning of 4,500 compares favorably with the 4,600 in the model brigade. Because newly inducted conscripts are first sent to training regiments before being assigned to brigades, there is relatively complete information on 13 training regiments, estimated at a total of 23,000 men. When higher headquarters and schools are added in, the overall total comes to 240,000 in 1982.

Internal Security Troops

The estimated number of men in the Internal Security Troops is the least certain of the three noncombat services. Despite a likely size of 450,000, there are few [redacted] sources, and most of those served in the prison guard component rather than in the Regular Troops of the Militia (RVM). This is probably because conscripts selected for the Internal Troops must be politically "reliable," [redacted]

[redacted]

There are a total of 37 known Ministry of Internal Affairs (MVD) divisions.[11] Reported divisional strength averages 11,000 men for a total of 407,000 in divisions. The estimated total for the Internal Troops of 450,000 is the sum of 407,000 in divisions plus separate estimates for national command and support, schools, and units located in Eastern Europe. The subjective uncertainty of this total is +25, −10 percent, reflecting the possibility that there may be some units as yet unidentified.

Several different approaches were used to validate this estimate. The probabilistic method described above was applied to estimate the number of men in MVD regiments and resulted in an average for 1972-80 of 284,000. However, because nearly all of the reported regiments were in the prison guard component, this figure must be assumed to *exclude* the RVM. This may seem large for prison security alone, but this can be corroborated independently. Ratios of prisoners to guards were calculated from 33 reports specifying both the actual number of troops and the number of prisoners being guarded:

Guard Unit	Average Prisoner-to-Guard Ratio
Regiment	8.6 to 1
Battalion	9.0 to 1
Company	10.0 to 1

[11] Ti

The smaller ratios for the larger units are consistent with reporting on the larger support "slice" of higher echelon units. Fifteen percent was subtracted from the regimental ratio to account for training and divisional support above the regimental level, giving an overall ratio of 7.3 to 1. Since the MVD guards approximately 2 million prisoners,[1] this ratio implies 274,000 guard personnel, roughly the same as estimated using the probabilistic method.

Unlike the prison guard component, there is insufficient information for an independent estimate of the other component of Internal Troops, the RVM. Consequently, we estimate it as a residual based on the total number of men in MVD divisions. Subtracting the prison guard component leaves 120,000 to 130,000 men for the RVM. This is reasonable considering that the MVD is responsible for maintaining public order in all urban areas of the Soviet Union. This figure is also reasonable when compared with the per capita number of internal security troops in other Warsaw Pact and NATO nations.

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Appendix B

General Method for Estimating the Ethnic Composition of the Services

Ideally, we would like to assess the level of ethnic tension or the status of ethnic relations in the Soviet military and evaluate the impact on combat effectiveness. However, this requires at least some subjective judgment by human sources, and reliably collecting such data requires a carefully controlled survey, which is impractical with current reporting

Documentary evidence on the current status of ethnic relations in Soviet society is sparse, and it is nonexistent for the military. Rather than attempting to develop a picture from incomplete evidence on ethnic relations, the focus here is on ethnic composition because it is a simple, objective index of Soviet attitudes and practices that we can measure despite the limitations of human source data (see inset). In addition, our findings can be readily compared with the known ethnic makeup of the draft-age population to determine whether ethnic composition is demographically representative

The fact that certain units are demographically unrepresentative does not, of course, prove the existence of ethnic prejudice nor does it prove the existence of a policy to that effect. However, such a finding clearly indicates the possibility of such a policy, since conscript assignments are determined by the Ministry of Defense

Our principal source is the large number of Soviet [redacted] As a result, we have the least information in cases where ethnic assignment prejudice is most likely. A second problem is whether the reported ethnic composition of a particular military unit arises because of ethnicity per se or because of ethnic differences in education and Russian-language fluency. Because skill-based assignment practices would lead to systematic variations in ethnic composition across units and even across the military services, it is crucial that we take it into account. Otherwise, we would be unable to determine whether a demographically unrepresentative unit were the result of its high skill requirements or the result of a policy aimed at ethnic groups.

[redacted]

The limitations of human source data and the impact of skill-based assignment practices are two uncertainties that we are unlikely to resolve regardless of the number [redacted] We conclude that [redacted] evidence is an unreliable basis for directly estimating the ethnic makeup of the *national security force*

On the other hand, we believe that [ ] evidence for the noncombat military is relatively free of the problems mentioned above. The functions of the *noncombat military* are primarily unskilled and nonsensitive—construction labor and guard duty (see inset, "Role and Organization of the Noncombat Services"). This allows us to make an important assumption: there are few skill-based assignment criteria *within* the noncombat military. Therefore, [ ] are substantially representative of noncombat personnel. This gives us much higher confidence in an [ ] based estimate of ethnic composition.

In addition, a simplified approach to nationality—Slavic and non-Slavic—focuses on the two groups for which discrimination should be most obvious. This is also the distinction made most frequently by [ ] Much more reliable results can be obtained by aggregating data into these two groups than if we considered each of the many ethnic groups separately.

With these assumptions, we can in effect control for the key uncertainties and make a higher confidence estimate of the ethnic makeup of the noncombat military than we could for the national security force. Therefore, this analysis estimates first, directly from [ ] the ethnic makeup of the noncombat military—the Construction, Railroad, and Internal Security Troops. Combining this with newly revised estimates of manpower in these units (see appendix A), we can derive the number of non-Slavic conscripts in the noncombat military. Since the Soviet Union practices universal conscription, conscripts as a whole appear to be demographically representative. Hence, we can estimate the total number of non-Slavic conscripts and subtract from it the number in the noncombat military, leaving the number assigned to the national security force. To illustrate the impact of future demographic change, a projection for 1990 is made that assumes overall military manpower levels will remain constant and that the ethnic makeup of the noncombat military remains at its historical level.

In making this estimate, we assume that the [ ] are a random sample of former noncombat personnel. There is evidence that [ ]

[ ] but relatively few projects appear to fall into this category. However, former Internal Security Troops conscripts may not be a random sample because there is much tighter security for both conscription and [ ] for this organization. Most notably, there are very few former Internal security conscripts who served in urban areas. There is also some evidence that former Railroad Troops conscripts may not be a random sample. Of those Railroad Troops conscripts who reported being sent to training regiments, most were sent to five out of the 13 such regiments. However, there is no indication that the location or function of these five regiments was unusual or is there any evidence of restrictions [ ] of former Railroad Troops personnel. Overall, we believe that our sample is close enough to being randomly drawn to warrant the assumption

The estimate for 1980 illustrates the general approach. This involves estimating the number of non-Slavic conscripts in the military as a whole and subtracting from it the number of non-Slavic conscripts in the noncombat services.

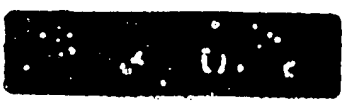
[ ] which shows that in 1980 conscripts made up 90 percent of the 1.5 million noncombat personnel and 70 percent of the 4.3 million national security force personnel for a total of 4.4 million conscripts. Since there is no evidence of ethnic prejudice in conscription after 1960, we assume that the ethnic composition of all conscripts is the same as that of the draft-age population—in 1980 this was 33 percent non-Slavic. This equates to 0.33 x 4.4 million or 1.45 million non-Slavic conscripts in the military as a whole.[1]

Of the 1.35 million conscripts—0.9 x 1.5 million—in the noncombat military, we estimate that 65 percent or 880,000 are non-Slavs. The 65-percent figure is based on the analysis of [ ] sources described in

[1] Note that, if the ethnic composition of conscripts differed from that of the draft-age population, then the estimated composition of the national security force would be in error

the section, "Results of Analysis," on page 5. The estimated number of non-Slavs in the national security force is simply the 1.45 million total less the 0.88 million in the noncombat military or 0.57 million. This is 19 percent of all national security force conscripts, although non-Slavs made up one-third of the 1980 draft-age population.

The estimates for 1970 repeat these calculations using the 1970 manpower levels for the military and the 1970 ethnic composition of the draft-age population. The ethnic makeup in the noncombat military is assumed to be constant over time. This is consistent with limited information from [redacted] The estimates for 1990 use the projected ethnic composition of the draft-age population and assume that 65 percent of conscripts in the noncombat services will be non-Slavic and that military manpower will remain at 1980 levels



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Appendix C

The Soviet Noncombat Services

Construction Troops

The Soviet Construction Troops build and maintain military facilities and provide labor for numerous civilian construction projects. In wartime, they would build fortifications and repair battle damage behind the front lines. Although even before World War II their size was a substantial 290,000, they reached their present size of about 800,000 only in the early 1970s. Contributing to this dramatic growth was the recovery from the severe manpower shortages of the early 1960s. In addition, a surge in military construction in the late 1960s required an expanded supply of construction laborers.

The use of *stroibats* (labor battalions) reflects not only the high priority the Soviets place on defense projects, but a rational response to the chronically backlogged construction sector. Compared with civilians, *stroibats* win high praise for cost efficiency. They can be assigned to remote areas at will, requiring no costly financial incentives or amenities. Turnover, absenteeism, and alcohol abuse (a major cause of low productivity) can be strictly controlled, and conscripts frequently work "overtime." Hence, even though the *stroibats* contain the least educated and least "reliable" nationalities, their productivity is much higher than civilians.

Rather than reduce the Construction Troops after the surge in military construction was completed, the Soviets have increasingly used them on civilian projects, which now employ at least half of their numbers.

Railroad Troops

Like the Construction Troops, the Railroad Troops are the Soviet response to chronic inefficiency in a high-priority sector. The Railroad Troops build and repair rail lines, particularly those important for military transportation, and they maintain a large war reserve of heavy construction equipment. They are also responsible for the completion of the Baikal-Amur Mainline (BAM), which, when complete, will extend over 4,000 kilometers. In wartime they would build, restore, and operate rail lines as needed for the movement of combat troops and supplies. The basic field unit is the brigade, which has several *stroibats* as well as equipment maintenance and support battalions.

The Railroad Troops were probably not substantial in size until the late 1950s, after the post-Stalin amnesties released the convict labor previously responsible for much of Soviet rail construction. The addition in 1974 of a fourth corps dedicated to BAM construction brought them to the present level of 240,000.

MVD Internal Security Troops

The Internal Security Troops consist of two main components: the Regular Troops of the Militia (RVM) and the prison guard component. The RVM is the teeth of the authorities in suppressing public disorder; it assists in law enforcement and provides security for a long list of sensitive industrial and government installations. The prison guard component provides security in the Gulag, the network of 1,200 prisons and prison camps, and for prisoners in transit. In time of war, the Internal Troops would maintain order in the Soviet rear and guard POWs.

The variety of duties call for a very large force, estimated at 450,000. The prison guard component accounts for the majority of this, guarding approximately 2 million convicts.